and the extent to which they will be embraced is very much unknown. Most importantly, there are critical factors that limit even the *potential* success of VoIP, most specifically the predicate that the customer have a high-speed data connection.[39] It is too simplistic to assume that all customers are going to want a high speed data connection – or even that all customers that *have* a high-speed data connection will desire VoIP based telecom services.

VoIP subscribers are not interchangeable with typical POTS subscribers. One critical difference between the POTS market and the VoIP market is the VoIP subscriber's need of a computer.[40] POTS subscribers, in general, want to make and receive voice telephone calls, they do not necessarily own, or have a need to own, a computer in order to access POTS services. In contrast, VoIP subscribers demand, and the service requires, high-speed access to the Internet, providing VoIP subscribers with the ability to communicate through both voice and data.

Further, VoIP technologies do not provide a service that is either as ubiquitously available as POTS services or as reliable in service quality as POTS. As stated above, VoIP requires high-speed access to the Internet. As of the end of 2003, only 26 million Americans had

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39 In one sense, this means VoIP cannot truly be considered a POTS alternative because the POTS market is comprised of that portion of the market that is more interested in basic voice service than high-speed data offerings.

40 *Availability of Advanced Telecommunications Capability in the United States,* FCC 04-208, GN Docket No. 04-54, Fourth Report to Congress ("*706 Fourth Report*"). While it is possible to access VoIP services without the use of a computer, the Commission cites to the fact that as of June 2004, only 71% of U.S. households had a computer as a possible justification as to why the penetration of broadband access (required for VoIP) lags behind deployment. *Id.* at 38.

subscriptions to a high-speed line.[41] In addition, service provider choices in the high-speed data service market are limited, with 39% of zip codes having two or fewer high-speed access providers, and 22% of zip codes with one or no provider available.[42] Considering the fact the ILECs serve over 80% of the subscribers to ADSL services and over half of the subscribers to other wireline high-speed services,[43] more than likely, the "choice" that the Americans have in nearly 40% of zip codes is between the ILEC and a single alternative provider, possibly a cable company.

In addition, VoIP service providers have acknowledged the shortcomings of VoIP service, recognizing the inability of VoIP telephony to serve as a replacement for a POTS line, particularly with respect to access to 911/E911 services. VoIP service providers such as Vonage and Package8 require subscribers to take additional affirmative steps, some associated with additional costs, to access 911/E911 services not reliably available through VoIP technology.[44] For example, Packet8's E911 service costs an additional $3.00 per month with a $9.95 activation fee. Customers are required to provide Packet8 with information regarding their permanent residence in order to assist in correctly routing any 911 call. If the subscriber fails to provide or update the information, the service will not be as reliable as a POTS line call to 911.[45]

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41 *High-Speed Services for Internet Access: Status as of December 31, 2003*, Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, at Table 3 (rel. June 8, 2004) (*"2003 High-Speed Services Report"*).

42 *Id.* Tables 12, 13.

43 *Id.* at Table 5.

44 *See* www.package8.net and www.vonage.com.

45 *See In the Matter of IP-Enabled Services,* WC Docket No. 04-36, Comments of 8x8, Inc., at 21 (May 28, 2004).

As described above, Vonage does not support traditional 911/E911 access to emergency services. Vonage does offer a limited 911-type service available only on Vonage devices. This service requires customers to take affirmative additional steps to register a geographic location with Vonage before the company can provide it with access to 911/E911 services. Subscribers cannot dial 911 until they have received a confirmation email acknowledging that their location has been registered with Vonage. Vonage also requires that customers sign an acknowledgment stating that they understand the 911/E911 limitations of the VoIP service.[46] When a subscriber calls 911, the call may not be routed to the 911 dispatcher specifically designated to receive incoming 911 calls using traditional 911 dialing. The 911 dialing does not function in the event of a power failure or disruption, and service and may be delayed or unavailable during periods of network congestion. In addition, service outages due to account suspension as a result of billing issues will prevent all services, including 911 dialing.[47]

Time Warner's VoIP product illustrates some of the differences between VoIP and traditional POTS service. Consider that Time Warner's service:[48]

* Supports only a single phone line to the home;
* Does not include a calling card accessible service, complicating calling beyond the premise;
* May not be compatible with home security systems; and
* Does not work with fax machines.

Moreover, the service is not available *at all* to the small business customer still interested in POTS phone service and, like most VoIP products, will not operate during power outages.

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46 For further discussion *See In the Matter of IP-Enabled Services,* Comments of Vonage Holdings Corp., at 39-40 (May 28, 2004). *See also* http://www.vonage.com.

47 *Id.* at 39-40.

48 Time Warner's offering in North Carolina is used here to illustrate its VoIP service.

The point of the above discussion is not to criticize VoIP offerings or to suggest that they will not find their own commercial niche. Rather, the point is that these services are *not* part of the POTS market and, even if 10% or 20% or more of the POTS market ultimately migrates to integrated high-speed voice and data products (of which VoIP is a subset), a substantial POTS market will remain and the goal of the Act to bring competition to that *POTS market* must still be addressed.

Recently, BellSouth sponsored a consumer survey in North Carolina that provides insight into the nature of competition in the POTS market that also can be used to contrast POTS competition with the far more limited competition that VoIP some day may bring.[49] The North Carolina study showed that the *potential* benefits of VoIP competition today are heavily concentrated in high-income households, while the vast majority of the households that (at least today) clearly are part of the POTS market are not even positioned to consider VoIP.

To begin, the North Carolina study showed that POTS competition today is broadly benefiting residential customers and bears virtually no relationship to household income. In fact, if there is any trend, it is that CLECs have been more successful in lower-income households (although the variation is within the study's 2.7% margin of error).

Table B: Competitive Share by Household Income – North Carolina[50]

Competitive Measure	Average	Household Income			
		<$25K	$25-$50k	$50-75K	>$75K
CLEC Market Share	15%	18%	15%	12%	12%

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49 Direct Testimony on John Ruscilli on behalf of BellSouth Telecommunications, Inc., Exhibit JAR-2 (Glover Park Study), North Carolina Utilities Commission Docket P-55, Sub 1013 (July 1, 2004) ("*Glover Park Study*").

50 *Id.* at Q3.

To place Table B in context, the median household income in North Carolina is only $38K per year (only slightly lower than the national median income of $43,500.00 per year).[51] Thus, the fact that UNE-based POTS competition – which is essentially the only POTS competition in North Carolina as elsewhere – has approximately the same penetration above and below the $50K breakpoint is proof that POTS competition is achievable for all Americans. Widespread POTS competition is achievable, however, *only* because Congress's unbundling regime opened the ILECs' monopoly local networks to other entrants.

If the only choice to POTS competition is competition among VoIP providers, then the POTS customer will be abandoned as providers only will be able to serve customers of advanced (*i.e.*, high-speed Internet) services. The North Carolina study makes clear that this prerequisite is heavily concentrated in households with high incomes. Although 56% of households with incomes in excess of $75K have high-speed Internet access (which means that more than 40% of even these high-income households would be denied competitive choice), only 13% of those households with annual incomes up to $50K have high-speed access. The POTS market today includes *all* of these customers, not only those that are the most well-off.

Table C: Penetration of High-Speed Internet Access

Competitive Measure	Household Income			
	<$25K	**$25-$50k**	**$50-75K**	**>$75K**
Percentage of Households with High Speed Internet	8%	17%	35%	56%
	13%		46%	

As shown in Table C, even if VoIP service did overcome all its qualitative differences with POTS, it would still not replace the POTS market because its threshold

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51 *See* Exhibit 3.

requirement – high speed Internet access – is so heavily concentrated in high income households in North Carolina. The addressable VoIP market is even more skewed towards higher income households when only cable-based Internet connections are considered. Because most DSL-based Internet connections are *bundled* with local phone service, it is not reasonable to consider them part of a VoIP-addressable phone market. After all, why would a consumer want a VoIP-based local alternative, when it is *already* getting local service alongside its DSL service?

Table D: Penetration of High-Speed Internet Access (Not Including DSL-Based Connections)

Competitive Measure	Household Income			
	<$25K	$25-$50k	$50-75K	>$75K
Percentage of Households with High Speed Internet	3%	8%	25%	38%
	6%		31%	

The North Carolina study highlights that the POTS market not only is large today, but also is unlikely to disappear any time soon. Phone service still is phone service in the residential market – on average, twice as many people make a local phone call each day than send an email – a fact that is true across all age groups and genders.[52] Perhaps more importantly, however, is what the North Carolina study reveals with respect to how VoIP competition might develop in the future. The fact is that the fundamental precondition to VoIP-based competition – high-speed Internet access – is concentrated among high-income households, which form a relatively narrow segment of the market.[53] Thus, while UNE-P based competition is broad, the *promise* of VoIP-based competition is narrow.

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52 *Glover Park Study* (Q18).

53 Notably, there is considerable overlap between households with high-speed Internet access and wireless phones, with more than 80% of the high-speed Internet households also having wireless service.

Similar conclusions apply in the small business market. A recent study by the Small Business Administration ("SBA") indicates that less than half of the small businesses have high-speed Internet access, with only 4% connecting through a DS1 connection.[54] The fact is that there remains a market of users interested in POTS phone service who do not require the high-speed data connections necessary for VoIP (even assuming that VoIP would otherwise prove a substitute).

These conclusions also are confirmed by the actual market experience of one of the members of the Pace Coalition. Even though Birch Telecom has moved aggressively to up-sell its small business POTS customers to integrated voice/data platforms, the fact is that many small businesses are not interested in high-speed data services and that the necessary loop facilities to offer broadband-based services are not available to many customer locations. As explained in Attachment A,[55] Birch Telecom has tried to aggressively market integrated voice/data offerings to its embedded UNE-P base in an effort to rely on its own facilities to the maximum extent practical. This effort has been constrained by two fundamental barriers. First, nearly *half* of the 84,000 customer locations that Birch Telecom serves using UNE-P cannot be reached by a broadband compatible (either DSL or DSL-capable) loop facility from SBC.[56] Second, among the customers to whom Birch Telecom is able to offer a facilities-based voice/data service, more than one-third of the large customers (greater than 10 voice lines), and nearly 90% of the smaller business customers (less than 10 voice lines) did not have a data need

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54 *A Survey of Small Businesses' Telecommunications Use and Spending*, SBA Office of Advocacy at 44 (Mar. 2004). Attached hereto as Exhibit 5.

55 Declaration of John Ivanuska, on behalf of Birch Telecom (provided as Attachment A).

56 *Id.* ¶ 6.

that justified the service.[57] Consequently, even though Birch Telecom has aggressively moved to migrate as many UNE-P customers to its own facilities as possible, the fact is that many of these customers cannot be moved, either because of broadband-compatible *facilities* are not available or the customer is *satisfied* with traditional POTS service.

These small businesses – like the residential customers discussed earlier – comprise a distinct POTS market that the Commission must respect. It is not enough to craft policies that may help some of these customers migrate from the POTS market to a market of advanced voice/data services; the customers that *remain* POTS customers also are entitled to competition.

C. POTS Competition Promotes Competition For Advanced Services

The role of the Commission in supporting the goals of the 1996 Act has not changed. The Commission still is required to promote competition in the POTS market, including the local exchange, access services, and long distance markets, as well as to encourage universal service through the deployment of advanced services to all Americans.[58] Importantly, the goals of advanced services deployment and POTS competition are not opposing.

1. *POTS competition spurs innovation in CLEC service offerings and facilitates additional advanced facilities deployment.*

Opening the traditional POTS market to competition has created the necessary foundation for competitive carriers to enter the market and not only to provide POTS services but also to deploy innovative services in furtherance of the Commission's mandate under section

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57 *Id.* ¶ 7.

58 47 U.S.C. § 706.

706 of the 1996 Act.[59] The current unbundling regime, specifically unbundled access to the ILEC's switch, supports and encourages the deployment of advanced services, satisfying Congress's mandate while promoting POTS competition. The Commission need not sacrifice POTS competition for the deployment of advanced services.

The deployment of advanced services, defined as "high-speed, switched, broadband telecommunications capabilities that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology,"[60] is a separate and distinct goal of the 1996 Act. In the Commission's *706 Fourth Report,*[61] it recognized the innovations and developments recently made in the deployment of advanced services to Americans. The Commission has seen the number of Americans subscribing to high-speed Internet services *triple* since June 2001, increasing in subscribership from 9.6 million lines in 2001 to 28.2 million lines at the end of 2003.[62] Subscribership to advanced services witnessed similar trends, tripling from 5.9 million lines in 2001 to 20.3 million lines in 2003.[63] The Commission noted that the deployment of the infrastructure necessary to provide broadband services has been significant, especially in rural areas where broadband services are not readily available.[64] This growth and development has occurred in harmony with the on-going access by

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59 *Id.*

60 *Id.*

61 *See 706 Fourth Report.*

62 "High-speed lines" are defined as 200 kilobits per second (kbps) or greater transmission speed in at least one direction. *Id.* at 8.

63 "Advanced services" are defined as 200 kilobits per second (kbps) or greater transmission speed in both directions. *Id.*

64 *Id.* at 30-32.

CLECs to the ILEC's switch. Maintaining the current unbundling regime and requiring ILECs to provide access to local switching to serve POTS customer has been proven not to serve as a deterrent to the deployment and evolution of advanced services, but rather as a spur to its growth and deployment.[65]

Unbundling also has not slowed advancements in the types of last mile technologies that support high-speed Internet access and other advanced services. Cable telephony, VoIP, Broadband over Power Lines (BPL), wireless services, and other advanced services such as unlicensed wireless services (Wi-Fi) and Satellite technologies, are finding their way to the market.[66] The more retail carriers with established operations, positive cash-flows and stable bases of POTS customers, the more potential venture partners and carrier-customers for these technologies will exist. The Commission does not get fewer new networks from the presence of retail-level competitors (that utilize ILEC network elements to provide service), it gets more.

As POTS competition grows, and consumer choice is realized, consumer demands for innovative and unique service offerings will drive the development and deployment of advanced services. The demand for advanced services will not decline with the continuation of the ILECs' unbundling obligations; indeed, continued unbundled access to ILEC network facilities will promote deployment of advanced services. The revenues generated through the

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65 Contrary to claims by one ILEC, SBC, ILECs have continued to increase advanced service offerings in their service territory even with an unbundling regime in place. It is doubtful that continued unbundling will realistically stifle ILEC deployment of facilities necessary for advanced services. *See Whiteacre: End Economic Regulations or Forgo Fiber-Optic, IP Innovations*, TR DAILY (Sept. 15, 2004). Attached hereto as Exhibit 6.

66 *See, e.g., 706 Fourth Report.*

provisioning of POTS service will provide CLECs with the financial wherewithal to deploy advanced services in connection with their POTS offerings. Once carriers have made the necessary penetration into the POTS market, have established a solid customer base, and have increased financial stability, those carriers will develop advanced service offerings to serve their customers. Penetration in the POTS market already has resulted in the deployment of more broadband technologies.[67] These advancements benefit competition in the POTS market.

2. *POTS competition made possible by access to the ILEC switch spurs innovation in ILEC service offerings.*

Further, mandated access to the ILEC's switch has permitted CLECs to utilize the legacy local exchange network to the benefit of POTS consumers by offering service packages and innovative unbundled service options to subscribers. Competition in the POTS market, through UNE-P, enables – and has resulted in – innovation far beyond the replication of existing ILEC services. Indeed, far from replicating the incumbents' service, the empirical evidence demonstrates that the ILECs are the ones deploying products to mimic the innovative offerings deployed by UNE-P providers. UNE-P CLECs have introduced a variety of new pricing and packaging strategies in the POTS market, leading the way in eliminating the distorting influence of distance and time in retail rate schedules.[68] ILECs have been forced to mimic their

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67 George S. Ford & Lawrence J. Spiwak, *Phoenix Center Policy Paper Number 19: The Positive Effects of Unbundling on Broadband Deployment*, PHOENIX CENTER POLICY PAPER SERIES (Sept. 2004), available at http://www.phoenix-center.org/pcpp/PCPP19Final.pdf. Attached hereto as Exhibit 7. *See also Phoenix Center Policy Bulletin No. 6: UNE-P Drives Bell Investment – A Synthesis Model*, (Sept. 2003), available at http://www.phoenix.center.org/PolicyBulletin6Final.pdf.

68 UNE-P CLECs were the first to introduce all-inclusive packages of local and long distance minutes. *See, e.g.*, Letter to Marlene H. Dortch, Secretary, Federal Communications Commission from Rebecca H. Sommi, VP Operations Support, Broadview CC Docket Nos. 01-338, 96-98, 98-147 (Nov. 1, 2002). *See also Phoenix*

. . . *Continued*

competitors by offering bundled packages at discounts that benefit all consumers.[69] The ILECs are not inclined to produce the innovation needed to create new applications without the presence of competition. The more POTS competition there is, the greater the *ILEC's* need is to differentiate itself through more sophisticated services and advanced network capabilities. Thus, as CLECs succeed in driving down POTS prices, both CLECs and ILECs will face increasing pressure to differentiate themselves in the market, through new facilities or other means.

The effects of POTS competition are cascading; first by reforming pricing in the POTS market, then by encouraging all participants – including the incumbent – to innovate further. If the ILECs succeed in eliminating POTS competition, their incentive to introduce new technologies will be diminished because they will have no reason to offer new services to distinguish themselves from other POTS competitors. This "cycle of innovation" – in which the entrant challenges the ILEC, and the ILEC responds with new services to differentiate itself – requires that both have access to the legacy network to compete.

Center Policy Bulletin No. 8: The $10 Billion Benefit of Unbundling: Consumer Surplus Gains from Competitive Pricing Innovations (Jan. 2004), available at www.phoenix-center.org/PolicyBulletin/PCPB8Final.pdf.

69 *See, e.g.*, www22.verizon.com ("Verizon Freedom Package" combines Verizon local and long distance services with Verizon DSL and wireless services); www.sbc.com ("SBC Total Connections" combines local phone, long distance, wireless, and Internet services); www.qwest.com/residential/products/qch/index5.html ("Qwest Choice" plan combines wireless service with other Qwest telecommunications services such as local, long distance and DSL); www.bellsouth.com/consumer/complete_choice.html ("Compete Choice Plan" in combination with its "BellSouth Answers" allows customers to bundle local, local toll, long distance, Wireless, Internet and DIRECTV® Service).

D. Restoring A POTS Monopoly Will Harm Competition For Advanced Services

The only fate worse than being a captive monopoly customer is being a captive customer of a monopoly that faces limited competition for some other customer's business. If the Commission permits the ILECs to re-monopolize the POTS marketplace, the ILECs will use these recaptured revenues to fund anticompetitive pricing strategies against those remaining entrants attempting to gain a foothold in other markets.

This danger is well recognized. Recently, speaking at a forum sponsored by the New America Foundation, Daniel Berninger, a senior analyst at Tier1 Research and a co-founder of Vonage Holdings Corp., noted the danger presented by allowing the fiction of competition for advanced services to leave customers in the POTS market unprotected by either choice or government regulation. As *TR Daily* reported:

> Mr. Berninger said it was "nonsense" to speak of intermodal competition. Cable modem service is not a substitute for digital subscriber line service, because the "maps" of available offerings "don't completely overlap." Even five years down the road, with more cable and DSL broadband build out and increased wireless broadband offerings, there will still be "laggard customers" who will be "abused in areas with less competition," he said. Government has to introduce regulations to keep markets working, he added.[70]

Mr. Berninger's "laggard customers" are otherwise known as POTS customers, and their numbers today exceed 100 million, against which the competitive gains made possible by UNE-P – 17 million lines – appear small. Even if only 60% of these lines return to the BOC – and press reports indicate that the BOCs themselves expect that more than 80% of the

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[70] *Best Path to Broadband Ubiquity Debated,* TR DAILY (Sept. 17, 2004). Attached hereto as Exhibit 8.

customers will return if the Commission abandons unbundling[71] – the Joint Commenters estimate the BOCs will enjoy a windfall exceeding $2.3 billion per year. Secure in their POTS monopoly, with only competition in the advanced services market to concern them, the BOCs will quickly turn their attention to driving competitors on the last remaining beachheads back to the sea.

To best serve the public interest and provide consumers with the greatest choice in service providers and service options, the Commission must assure that both POTS competition and advanced services competition are encouraged. CLECs in the POTS market have been developing a solid foundation in the fundamental skills of telephony and differentiating themselves from the ILEC, and each other, through a variety of investment and service innovations. Continued orderly access to the ILEC's switch at cost-based rates will ensure that POTS competition can and will continue to grow and that enhanced POTS offerings will be made possible for POTS consumers. In such an environment, innovations and advancements in advanced services will continue to occur.

III. THE COMMISSION'S IMPAIRMENT STANDARD IS SOUND.

In the *Triennial Review Order*, the Commission established a standard for determining when, applying section 251(d)(2), a CLEC would be "impaired" by a denial of access to a non-proprietary network element. The Commission defined impairment as "an entry barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic."[72] The Commission focused its impairment analysis on five types of entry barriers that CLECs face: (1) economies of scale, (2) the existence of sunk costs,

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71 *Baby Bells Seeing Rivals Taking Fewer Phones,* REUTERS (Sept. 10, 2004). Attached hereto as Exhibit 9.

72 *Triennial Review Order* ¶ 84.

(3) "first-mover" advantages, (4) absolute cost advantages, and (5) barriers within the control of the incumbent LECs.[73]

In *USTA II*, the D.C. Circuit found that the Commission's impairment standard "plausibly connects factors to consider in the impairment inquiry to natural monopoly characteristics ... [or] connects them (in logic that the ILECs do not seem to contest) to other structural impediments to competitive supply."[74] The court found "no statutory offense" in the Commission's use of a broader concept of impairment balanced by consideration of the "full context" in making an unbundling decision.[75] The court offered several "general observations" for the Commission's consideration in making impairment determinations on remand. First, the court expressed concern that the Commission's standard may be "too open ended" because it does not address the type of CLEC for which the impediment must make entry uneconomic.[76] Second, the court reaffirmed *USTA I*'s holding that the Commission cannot ignore intermodal alternatives.[77] Third, the court questioned whether the Commission adequately considered impairment in markets where state regulation holds rates below historic costs.[78]

A. The Core Of The Commission's Definition Is Sound.

The court in *USTA II* specifically refrained from any general criticism of the Commission's general impairment standard articulated in the *Triennial Review Order*. Indeed,

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73 *Id.* ¶¶ 87-91.

74 *USTA II*, 359 F.3d at 571-72.

75 *Id.* at 572; *see Verizon v. FCC*, 535 U.S. at 476 (Commission may order unbundling at the expense of incentives to deploy facilities).

76 *USTA II*, 359 F.3d at 572.

77 *Id.* at 572-73.

78 *Id.* at 573.

the court specifically observed that the Commission's interpretation of "impairment" in the *Triennial Review Order* represented an improvement over past efforts because the Commission "explicitly and plausibly" connected the factors to be considered in the analysis to natural monopoly characteristics and or to other structural impediments to competitive supply, such as sunk costs, ILEC absolute cost advantages, first-mover advantages, and operational barriers to entry within the control of the ILEC.[79] Instead, the court noted that only in the context of concrete application of the impairment standard to specific network elements is the impairment standard justifiable.

Thus, in the context of the current rulemaking, there is no reason to reformulate the general impairment standard adopted in the *Triennial Review Order*. The standard applied in this proceeding should continue to be "[a] lack of access to an incumbent LEC network element [which] poses a barrier to entry, including operational or economic barriers, that are likely to make entry into a market uneconomic."[80] The alternative formulation set forth by the Commission was that impairment no longer exists when "all potential revenues from entering a market exceed the costs of entry, taking into consideration any countervailing advantages that a new entrant may have."[81]

In the *Triennial Review Order,* the Commission adopted an approach informed by the consideration of relevant entry barriers and the examination of other evidence that entry into the relevant market is uneconomic, especially evidence whether entry into the market has already occurred in both geographic and customer markets without reliance on the ILEC's network, *i.e.,*

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79 *Id.* at 572.

80 *Triennial Review Order* ¶ 84.

81 *Id.*

through self-provisioning or reliance of third-party provisioning.[82] The Commission focused on a number of specific entry barriers, and should continue to do so throughout the current examination: scale economies, sunk costs, first-mover advantages, absolute cost advantages, and barriers within the control of the ILEC, such as discussed in the hot cut process, in the case of unbundled local switching.[83] This analytic framework should, again, be retained, because nothing in the *USTA II* decision brings it into question.

The Commission's approach also took into account "customer class, geography, and service."[84] Regarding customer class distinctions, the Commission found that distinct market segments existed for mass market, small and medium enterprise, and large enterprise customers.[85] Geography also was taken into account, with the creation of rules that would vary in their implementation in different areas of the country.[86] Finally, the Commission conducted its impairment analysis in the context of services that competitive providers might offer using the network elements in competition with traditional ILEC telecommunications services.[87] None of the foregoing aspects of the Commission's *Triennial Review Order* require changes before impairment analyses are conducted. Consequently, much of the data and analyses prepared for

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82 *Id.*

83 *Id.* ¶¶ 85-91.

84 *Id.* ¶ 118.

85 *Id.* ¶ 123.

86 The Commission delegated authority to the state commissions "to ensure that the unbundling rules are implemented on the most accurate level possible while still ensuring administrative practicality." *Id.* ¶ 130.

87 *Id.* ¶ 141.

the states' impairment proceedings in the wake of the *Triennial Review Order* are pertinent to the impairment investigations the Commission must now undertake.

In the *Triennial Review Order,* the Commission used the "at a minimum" language in section 251(d)(2) of the statute to balance some evidence of impairment with indications that unbundling would serve to undermine important goals of the 1996 Act. Thus, even where impairment was found, it is possible that unbundling nonetheless would not be required if the 1996 Act's goals therefore would be disserved. Whether that would be the case in any given scenario, of course, is a matter to be determined within the Commission's discretion.[88] Moreover, the court did not question the Commission's ability to order unbundling in situations when not *all* goals of the 1996 Act would be satisfied if unbundling were to occur.

Conversely, the Commission recognized that the "at a minimum" standard would support the requirement of unbundling even in the absence of a formal finding of impairment.[89] The court in *USTA II* looked upon this interpretation of the unbundling standard with approbation, specifically noting that the Commission had moved beyond a dichotomous treatment of impairment and was able to accommodate different degrees of impairment, or even the lack thereof, by "examining the full context before ordering unbundling."[90] In so doing, the court made clear that the Commission's discretion to order unbundling extended beyond those situations simply where impairment existed.

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88 *Id.* ¶ 173.

89 *Id.* ¶¶ 173-74.

90 *USTA II*, 359 F.3d at 572.

B. The Commission Can Address The Court's Concerns With, At Most, Minor Modifications To Clarify Application Of The Impairment Standard.

At bottom, in light of the court's general acceptance of the Commission's impairment standard, rather than revisit the impairment standard in any general sense, the Commission instead should focus on the development of criteria applicable to each element by which impairment will be assessed relative to the conceptual standard developed by the Commission in the *Triennial Review Order*. Indeed, the competitive industry can ill afford to have the agency tinker with that which the court has looked on favorably, increasing the prospect of another *vacatur* of the Commission's unbundling rules, or any significant part thereof.

Despite the general favor bestowed on the impairment standard articulated in the *Triennial Review Order*, the court did identify several areas where the impairment standard, as a general matter, required further refinement or clarification, which the Commission should accommodate at this time:

a. Uneconomic Entry: Certain aspects of the Commission's general impairment standard did come under scrutiny. The court found, "vague almost to the point of being empty," the Commission's failure to identify for whom entry was required to be uneconomic before entry barriers would amount to impairment.[91] Rather than entertaining an impairment analysis based on the hypothetically "most efficient" CLEC, the Commission should look, at a minimum, at a "reasonably efficient" CLEC using the telecommunications technologies currently available. The Commission's impairment analysis, and sections 251(c)(3) and 251(d)(2), are geared toward determining which elements should be made available to *all* telecommunications carriers upon request. Section 251(c)(3) promises the availability of

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91 *Id.*

unbundled network elements "in accordance with the requirements . . . of [sections 251 and] 252" to "*any* telecommunications carrier."[92] Meanwhile, section 251(c)(2)(B) refers to the question of whether "the failure to provide access to such network element would impair the ability of *the telecommunications carrier* seeking access to provide the services it seeks to offer." Reading these provisions together, the Commission's consideration of impairment is to be focused on the impairment of *any* telecommunications carrier.

Nonetheless, mindful that looking at impairment from the perspective of *any* telecommunications carrier creates the potential danger that, as the Supreme Court noted in *AT&T v. Iowa Utilities Board*, there would be no effective limiting factor,[93] it is reasonable for the Commission to pursue a middle ground. The 1996 Act does not require requesting competitive telecommunications carriers to be "optimally efficient" or to use the most advanced technologies. Indeed, in the 1996 Act Congress encourages, as has the Commission since its passage, CLECs who are entering the market to use and deploy a variety of network architectures and infrastructures. It is natural to expect that telecommunications carriers, regardless of their exact network design or business plan, will strive toward some reasonable level of efficiency and use of existing technologies. Moreover, given the Act's focus on "the services the carrier seeks to offer,"[94] not all new technologies are relevant in some markets (*e.g.* the traditional POTS market). Therefore, in light of the general availability of section 251(c)(3) unbundled network elements once unbundling is required, it is appropriate to use a "reasonably efficient" CLEC

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92 47 U.S.C. § 251(c)(3).

93 *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 388 (1999).

94 47 U.S.C. § 251(c)(3).

using the telecommunications technologies currently available as the measure by which uneconomic entry is assessed.

b. Intermodal alternatives: In the *Triennial Review Order*, the Commission determined to consider intermodal alternatives, such as cable competition in broadband facilities. The court acknowledged this, but reserved review of the weight assigned by the Commission to the presence of such alternatives.[95] As discussed herein, the Commission only should consider the presence of intermodal alternatives an indication of relevant competitive entry where those alternatives are comparable in cost, quality, and maturity to the incumbent's network elements and should explicitly consider whether such intermodal alternatives lessen the impairment of an entrant in the services the entrant seeks to offer.[96] Further, the Commission should determine whether the presence of the intermodal alternatives is not so much evidence of non-impairment of another entrant but of unique advantages that other CLECs do not enjoy, *i.e.,* incumbent cable companies enjoy economies of scope and scale, first mover advantages, government franchise protections, and the benefits of alternative local loop facilities. As such, the presence of intermodal alternatives may have little relevance to the impairment analysis in particular markets or regarding particular elements even if the alternatives are equivalent to the service the CLEC seeks to offer.[97] These issues are discussed in more detail below in these comments' application of the impairment standard to unbundled local switching.

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95 *USTA II*, 359 F.3d at 573.

96 *Triennial Review Order* ¶ 97.

97 As explained herein, however, the intermodal alternatives touted by the ILEC – wireless and VoIP based services – are not equivalent to POTS services.

c. Retail rates below historic costs; universal service: In criticizing the Commission's treatment of below-cost retail rates in the *Triennial Review Order,* the *USTA II* court was most interested in the Commission's handling of impairment in the scenario where TELRIC rates were below artificially low ILEC retail rates, such that CLECs would have the opportunity to cut even further into ILEC revenues, on top of the opportunity to take TELRIC rates that are well below the retail rates of the above-cost retail services that are subsidizing the below cost services.[98] Implicitly, if not explicitly, the court expected the Commission on remand to take into account the impact of unbundling in such scenarios on ILEC revenues and, more specifically, the ILEC's ability to support the Act's universal service goals where its super-competitive revenues might be further diminished by low unbundled element rates. As the Commission noted in the *Triennial Review Order*, the 1996 Act already includes a number of protections against unbundling and UNE pricing under sections 251 and 252 putting untoward pressure on universal service obligations, in that rural and small carriers are or can be relieved of bundling obligations that apply to incumbent local carriers in general.[99]

Further, as the Commission noted, the rates principally affected in the scenario of concern to the court are intrastate rates. If the UNE rates are arguably too low, such that an ILEC's margins may be threatened, the states are free, in recognition of the consumer welfare within their borders, to adjust retail rates in a way that promotes competition.[100] Factually,

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98 *USTA II*, 359 F.3d at 572.

99 *Triennial Review Order* ¶ 162; *see also* 47 U.S.C. §§ 251(f)(1) (rural carrier exemption) and 251(f)(2) (small carrier suspensions).

100 Further, as the court noted, retail rates can be set so low as to prevent CLEC entry even at TELRIC pricing. *USTA II*, 359 F.3d at 572. Not to put too fine of a point on it, if the presence of such rates is not a factor the Commission can consider, even if only under the

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however, the states have been directed to de-average their UNE rates, the 1996 Act mandated a universal service fund that is to be competitively neutral, and the BOCs have never been able to show – as opposed to merely claim – that there are significant customer segments to whom they provide service at a loss. The BOCs claim that basic local service, standing alone, does not cover the full costs of connecting and serving a customer has lost relevance because virtually none of the BOC's customers purchase only basic local service. Indeed, the BOCs are reporting *increasing* average revenue per consumer line, despite their protestations concerning competition. If anything, BOC margin concerns are reversing as profitability per line continues to increase. For instance, SBC's average consumer retail revenue per-line has increased from $38.91 per line to $41.26 in just nine months.[101] Verizon's average residential revenue increased to $36.97 per line (from $35.24 just last year);[102] while BellSouth's operating margin for its communications group increased to 25.9% in the second quarter, improving 60 basis points form the prior quarter.[103] Although Qwest's earnings statements are not as detailed as the other BOCs, it also reported strong revenue growth as a result of long distance, its bundles and DSL, although the gain was offset by competitive pressure in the *enterprise* (not the mass) market.[104] These operating results do not suggest companies are disadvantaged by the inherited monopoly and retail prices.

"at a minimum" clause, then the central goal of the 1996 Act will be frustrated. The Commission's consideration of such rate levels as a barrier to entry is proper.

101 Investor Update, SBC Second Quarter 2004 Earnings, July 22, 2004, http://www.sbc.com/Investor/Financial/Earning_Info/docs/2Q_04_slide_c.pdf.

102 Verizon 2nd Quarter Earnings Release, July 27, 2004, http://investor.verizon.com/financial/quarterly/VZ/2Q2004/.

103 http://www.bellsouth.com/investor/pdf/2q04p_news.pdf.

104 http://media.corporate-ir.net/media_files/NYS/q/news/Q204_earnings.pdf.

C. Application Of The Impairment Standard To Unbundled Local Switching.

In *USTA II*, the court did not reject the Commission's analysis of the impairments faced by CLECs in serving mass market customers using non-ILEC switching. The court's *vacatur* of the Commission's impairment determination for mass market local switching was grounded in its rejection of the Commission's delegation of authority to the state commissions to conclude whether the provisional national impairment finding should apply in their jurisdictions. In the court's view, the Commission's no-longer provisional national impairment finding must be vacated because of its inconsistency with the conclusion in *USTA I* that the impairment analysis must be nuanced and granular in nature.[105]

Indeed, in addressing the Commission's conclusion in the *Triennial Review Order* that deficiencies in ILEC hot cut processes result in impairment for CLECs serving mass market customers, the court acknowledged that "certain sections of the Order suggest that impairment due to hot cuts might be sufficiently widespread to support a general national impairment finding, even in the absence of more 'nuanced' determinations to be made by the state commissions."[106] The court's decision to refrain from using this evidence to uphold the national impairment finding was based solely on its erroneous conclusion that the Commission's delegation to the state commissions to review evidence regarding hot cut processes was grounded in a belief that hot cut problems did not exist everywhere. To the contrary, the Commission recognized in the *Triennial Review Order* that deficiencies in hot cut processes

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105 "We must vacate...as inconsistent with our conclusion in *USTA I* that the Commission may not 'loftily abstract[ ] away from all specific markets'...but must instead implement a 'more nuanced concept of impairment.'" *USTA II*, 359 F3d at 569 (citations omitted).

106 *Id.*

exist on a national basis[107] but that *USTA I*'s mandate required it to refrain from adopting an across-the-board rule that did not provide any opportunity for review of specific market conditions.

As shown below, a review of actual market-specific conditions demonstrates that for the POTS market – which is the appropriate market definition to comply with the court's call for a nuanced review – impairments are widespread and the Commission's previous national finding of impairment is appropriate.[108] The Supreme Court's direction that unbundling must be "limited and rationally related to the goals of the Act"[109] does not require a finding of no impairment; to the contrary, when market evidence makes clear that the only viable path to competition is through unbundling, the Act demands its availability so as to "give aspiring competitors every possible incentive to enter local retail telephone markets short of confiscating the incumbents' property."[110]

D. No Matter How You Define The Market, The State Records Demonstrate The Dependency Of Mass Market Competition On Unbundled Local Switching.

The analog loop network inherited by the ILECs after decades of government protection must be accessed in a ubiquitous and cost-effective manner for POTS competition to succeed. The nation's experiment with local competition confirms that this legacy network only

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107 *Triennial Review Order* ¶ 473.

108 *See* T.R. Beard, R.B. Ekelund Jr., and G.S. Ford, *The Law and Economic of Unbundling and Impairment*, 2003 J. LAW, TECHNOLOGY, AND POLICY (Fall 2003).

109 *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. at 374.

110 *Verizon v. FCC*, 535 U.S. at 489. The Supreme Court's use of the term "retail telephone markets" is particularly significant because it effectively recognizes the Act's intent to encourage retail-level competition, which does not necessarily require a duplication of network facilities.